



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/543,754

04/05/2000

Osamu Sekihata

FUSA 17.211

6383

7590 07/12/2007
Katten, Muchin, Zavis & Rosenman
575 Madison Ave.
New York, NY 10022-2585

EXAMINER

HOM, SHICK C

ART UNIT

PAPER NUMBER

2616

MAIL DATE

DELIVERY MODE

07/12/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/543,754

Applicant(s)

SEKIHATA, OSAMU

Examiner

Shick C. Horn

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 June 2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 6/25/07 has been entered.

Response to Arguments

2. Applicant's arguments with respect to claims 1-18 have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

3. Claims 1-11, and 15 are objected to because of the following informalities: In claim 1 lines 8 and 10, claim 2 line 2, claim 3 line 6, the words "a real-time application" seem to refer back to the "real-time application" recited in claim 1 line 5. If this is true, it is suggested changing "a real-time

Art Unit: 2616

application" to ---the real-time application---. Claim 1 line 9, the words "a destination" seem to refer back to the "destination" recited in claim 1 line 8. If this is true, it is suggested changing "a destination" to ---the destination---. Likewise, in claim 4 line 2 delete "to a frame" and insert ---to the frame---; in claim 4 line 3, delete "a frame" and insert ---the frame---; in claim 5 line 8 delete "a destination" and insert ---the destination---; in claim 5 lines 7 and 9 delete "an application" and insert ---application---, to be consistent with claim 5 line 5; in claim 9 line 9 delete "a destination" and insert ---the destination---; in claim 15 line 2 delete "a received frame" and insert ---the received frame---. Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. Claims 1-11 and 15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 1, 9 lines 2, 7-8, 9; claim 5 lines 2, 6-7, 8 recite the frame being send to "a path," "a plurality of paths," and "an only path" respectively is not clear as to how the path, paths, and only path are related.

In claim 15 lines 1-2 which recite "the frame identifier is a frame identifier" is not clear how "the frame identifier" is difference from "a frame identifier".

Claims 2-4, 6-8, and 10-11 are rejected under 35 U.S.C. 112, second paragraph because they depend from rejected claims 1, 5, and 9, respectively.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 12-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Perlman (5,175,765).

Regarding claims 12-13:

Perlman discloses a frame forwarding installation for receiving frames, which are directed toward a subordinate destination terminal, from a plurality of paths and transmitting one of the frames to the destination terminal, comprising

a receiving unit for receiving a frame in duplicate from a plurality of paths (col. 1 lines 38-55 recite multiple copies of packet being received over the multiple paths);

a storage unit for storing an identifier of a frame that has been transmitted to the destination terminal (col. 2 lines 27-45 recite memory for storing received packets); and

a redundant-frame filter for determining whether a frame identifier of a frame newly received from one of said plurality of paths has already been stored in said storage unit, discarding the received frame if the received frame has the frame identifier that has already been stored in said storage unit wherein the frame identifier is a sequence number contained in the frame (col. 15 lines 3-15 recite means for removing duplicate packets by comparing received packet with a stored packet by checking its sequence numbers, i.e. received packet having the same sequence numbers as stored packet is discarded clearly anticipate the redundant-frame filter), and

transmitting the received frame to the destination terminal and storing the identifier of the received frame in said storage unit if the received frame is not the frame that has already been received (Figs. 4C and 4B show that if the received packet is different, i.e. Fig. 4C block 93, then the packet is stored in memory and transmitted as shown in Fig. 4B blocks 79 and 80).

Art Unit: 2616

Regarding claims 14-15:

Perlman discloses wherein the frame identifier is a computational result obtained by subjecting a specific portion of the received frame to a fixed computation as in claim 14 and wherein the frame identifier is a frame identifier contained in a tag that has been attached to a received frame as in claim 15 (col. 2 lines 46-53 recite generating the sequence number by counting the packets originating from a node being included as part of the packet header clearly anticipate the identifier being a computational result and a tag attached to the frame).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Perlman (5,175,765) in view of Williams et al. (5,883,891).

Art Unit: 2616

Regarding claims 16-18:

Perlman discloses the network having a frame forwarding installation for sending a received frame described in paragraph 5 of this office action. Perlman discloses all the subject matter of the claimed invention with the exception of an application discriminating unit for referring to the header of the received frame and determining whether an application of a host layer in the transmitting terminal is a real-time application as in claim 16; is a predetermined type as in claim 17; or the header of the received frame matches an address that has already been registered as in claim 18; and a frame transmitting unit for sending, in duplicate, the received frame to a plurality of paths in parallel in the direction of a destination if the application is a real-time application as in claim 16; is a predetermined type as in claim 17; or the header of the received frame matches an address that has already been registered as in claim 18.

Williams et al. from the same or similar fields of endeavor teach that it is known to provide an application discriminating unit for referring to the header of the received frame and determining whether an application of a host layer in the transmitting terminal is a real-time application; is a

Art Unit: 2616

predetermined type; or the header of the received frame matches an address that has already been registered; and a frame transmitting unit for sending, in duplicate, the received frame to a plurality of paths in parallel in the direction of a destination if the application is a real-time application; is a predetermined type; or the header of the received frame matches an address that has already been registered (the abstract and col. 2 lines 11-22 recite because of delays of transmission and lost connections, audio quality or phone conversation, and real-time critical type data transmissions are redundantly send over multiple diverse paths, and col. 2 line 66 to col. 3 line 8 which recite the use of destination address in the header including pre-selected routes clearly anticipate sending in duplicate frame to a plurality of paths in parallel in the direction of a destination if the application is a real-time application, is a predetermined type, or the addresses match).

Thus, it would have been obvious to the person having ordinary skill in the art at the time the invention was made to provide the application-type discriminating unit and frame transmitting unit for sending in duplicate frame to a plurality of paths in parallel in the direction of a destination if the application is a real-time application, is a predetermined type,

Art Unit: 2616

or the addresses match as taught by Williams et al. in the frame forwarding installation for sending frame of Perlman.

The application-type discriminating unit and frame transmitting unit for sending in duplicate frame to a plurality of paths in parallel in the direction of a destination if the application is a real-time application, is a predetermined type, or the addresses match can be implemented by connecting the application-type discriminating unit and frame transmitting unit for sending in duplicate frame to a plurality of paths of Williams et al. to the installation for sending frames of Perlman.

The motivation for connecting the application-type discriminating unit and frame transmitting unit for sending in duplicate frame to a plurality of paths in parallel in the direction of a destination if the application is a real-time application, is a predetermined type, or the addresses match as taught by Williams et al. to the frame transmitter of Perlman being that it provides more reliability for receiving frames of a predetermined type of application from the transmitting end because the frames are transmitted in duplicate using a plurality of paths in the transmitter.

Allowable Subject Matter

9. Claims 1-11 would be allowable if rewritten or amended to overcome the objections and rejections under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Nakata et al. disclose a communication apparatus, network system using communication apparatus and control method used in network system.


Hafebeck et al. disclose a method for transmitting information in a universal transmission network.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shick C. Hom whose telephone number is 571-272-3173. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pham Chi can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SH SH


CHI PHAM
SUPERVISORY PATENT EXAMINER 7/9/07